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INFORMATION REPORT

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THE SOURCE EVALUATIONS IN THIS REPORT ARE DEFINITIVE.
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(FOR KEY SEE REVERSE)

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1. The Berliner Gluehlampenwerk (BGW) cooperated in technical matters with a number of East German establishments as indicated in the following paragraphs.
2. The Werk fuer Fernmeldewesen HF, Oberspreewerk (OSW), worked closely with BGW, especially after OSW became a VEB establishment. Until the end of 1952, OSW produced the tungsten wire for its own output of a variety of types of radio tubes, transmitter tubes for small and large transmitters, Braun tubes and television tubes, and infrared image tubes, as well as various instruments for use in the telecommunications and radio industry. However, since 1953, all tungsten wire production, beginning with processing of the ore, has been transferred to BGW along with all machinery and equipment. Under the supervision of BGW, production at OSW has been increased to 6.6 tons annually. Research requirements of OSW, as revealed by its dealings with BGW, are not known. Chips of calcium of 99.9% purity obtained from Bitterfeld were used by OSW and BGW for gridding in the tube manufacture process. The total amount used was very small, and a single delivery of 1/2 kg was noted.
3. RFT Funkwerk, Erfurt received tungsten and other special wires produced by BGW. In 1952, a group of scientists at RFT Erfurt succeeded in producing high-purity iron powder electrolytically. It was intended originally that this high-purity iron powder, because of its good magnetic properties, would serve as a substitute for carbonyl iron powder in the production of Pupin coil cores. However, its main use was in the production by powder metallurgy of high-purity iron wires used in iron-by-hydrogen resistors.¹ These wires were drawn at BGW, and the iron-by-hydrogen resistors were then constructed at RFT Gluehlampenwerk, Oberweissbach. The development of powder metallurgical production of these wires was undertaken in the BGW metal research department in 1952. The resistance values of pure iron-by-hydrogen resistors, as constructed in East Germany, were 9.5 to 9.8. The instruments were used for regulators of all kinds and for calibrating transmitter test oscillators. Dr. Gaulrapp from Leuna was concerned with their use for temperature measurements and indicated that this subject was not to be discussed.

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4. The Institut fuer Werkstoffkunde of the Technische Hochschule, Dresden, conducted research on the prevention of recrystallization of high-purity iron wires. The work was supervised by Prof. Dr. Eisenkolb, director of the Institute, and Dipl. Ing. Moebius² wrote his thesis on this subject. Upon completion of the thesis, it was taken from him and classified "SECRET".
5. The Halbzeugwerk Auerhammer in Aue, Saxony, produced various semi-finished products for use in the radio and vacuum products industry. The quality of the output was considered to be poor. The decision was made by the East German Government that the Halbzeugwerk Auerhammer should be developed as the main producer of all semi-finished products for the entire vacuum products and radio industry, following the example of Vakuumschmelze, Hanau. However, since the factory was badly equipped, the prerequisites for such an undertaking were lacking. Only one vacuum oven, one high frequency smelting oven, and a few antiquated rolling mill trains were available, and the laboratories were, in general, primitively furnished. The average age of employees was between fifty-five and sixty years, since all younger people had been made available for uranium mining in Aue, Ober- and Niederschlema. The Ministry of Machine Construction,³ in conjunction with other government agencies, has planned a far-reaching reconstruction program for this installation in 1953 and 1954.
6. The BGW has at one time or another delivered tungsten-wire products to
- RFT Gluehlampenwerk, Plauen,
RFT Gluehlampenwerk, Dresden,
RFT Gluehlampenwerk, Eisenach, and
Rundfunkroehrenwerk, Muehlhausen.

Comments:

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1. Iron-hydrogen resistors are critically needed in East Germany.

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3. Comment: Sic. Possibly the Ministry of Heavy Machine Construction is meant.

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